

light, bird migration, behavior, senses, and bird protection, as well as narratives of some of the author's many trips to Labrador, Alaska, Mexico, and other places. Ardent students of behavior will no doubt regard some of the discussions of this subject as greatly over-simplified, yet the author is to be thanked for a readable indication, to a wide field of lay readers, that animal activity is to be judged by other than human standards.

The book is heartily recommended to all readers, whether lay or scientific, who have a real appreciation of the beauty of birds.—ROBERT M. MENGEL.

CONTROVERSIAL CONSERVATION

A contribution from the Wilson Ornithological Club Conservation Committee

Man always has depended upon the bounties of nature for his sustenance and it is unreasonable to expect him to stop eating—and die himself—rather than take the life of some other animal. Neither can we expect man to freeze rather than destroy a tree for the purpose of making shelter for himself and his family. These facts are self-evident. Formerly, the slaying of deer and the cutting of trees was done by the individual who used these products of nature to satisfy his own wants. Today, we purchase our meat from a butcher shop and secure our lumber from a building supply store, and it is seldom that we harvest directly nature's product. For this reason the conservation of our natural resources may be only of academic consideration to a large part of the American people. Twentieth century Americans may deplore the over-grazing of western grass lands, but insist upon meat in their daily menu.

Theodore Roosevelt is often credited with placing the term "conservation" upon the lips of the American public. For the past half-century the word has been used over and over again until today almost everyone is "for" conservation just as they are "agin" sin. The theological term "sin" has many meanings to different individuals and it appears that the term "conservation" may have as many definitions.

Those of us in the conservation field probably differ as much in our interpretation of the term as does the general public. Most naturalists agree with Thoreau that "Every creature is better alive than dead, men and moose and pine-trees, and he who understands it aright will rather preserve its life than destroy it." It is equally true, however, that most professional naturalists would consider themselves remiss if they did not personally destroy a mortally wounded or sick animal rather than let it die a painful and lingering death. How can a conservationist kill and protect at the same time? Can a hunter and a bird watcher both be called "conservationists"? How can we reconcile the different approaches of the National Park Service, where no life—neither plant nor animal—may be taken and the U. S. Forest Service where the cutting of timber is a standard management practice and the harvesting of the surplus game is considered logical? Again, why does the Fish and Wildlife Service purchase and develop wildlife refuges where waterfowl are encouraged to nest and rear their young without hindrance and, within the same agency, promulgate and enforce regulations for the hunting of ducks and geese? State wildlife agencies devote a majority of their attention to the removal of wild game by sportsmen during the fall and, at the same time, prosecute anyone who kills wild animals at other seasons of the year. All of these agencies consider themselves conservation organizations dedicated to the preservation of our various natural resources. Most individuals would agree that such divergent activities of these organizations actually are dedicated to the conservation of our natural resources only if they have an acceptable and mutually agreeable understanding of

the meaning of conservation. According to the dictionary, conserve means "to maintain in continued being" and conservation, as we use it, includes "a preserving, guarding, or protecting; a keeping in a safe and entire state; preservation." There are those of us who would like to add to these definitions "use without abuse and/or destruction."

The forester holds that his axe is the best tool for the conservation of the forest; we would agree with him if we accept the fact that the cutting of the timber is the only way we can devote the trees to human use and still "maintain them in continued being." True, ecological succession would gradually replace the same species of trees over a long period of time if the old monarchs of the forest were permitted to rot, fall, and decay. The forester bases his conservation activities on the premise that it is better to cut and utilize mature trees rather than to let them be wasted by rotting. He maintains that he is preserving by utilization; that he is conserving and guarding his forest by means of his axe.

Many naturalists think that any form of hunting is destructive and therefore does not fall in the category of conservation by any stretch of the imagination. On the other hand, most state and federal wildlife agencies take the opposite view. They hold that the gun is a tool that will permit the removal and use of surplus game and that they can best guard and preserve our wildlife resources by such judicious utilization. Our federal and state parks, on the other hand, permit neither gun nor axe to be used except under extremely unusual circumstances. Are they both right?

Within the natural sciences, it seems that we must accept the fact that man by his activities has changed the face of this earth and that we must accept him, his desires, his needs and his demands in our conservation activities. Bird protection—especially of our songbirds—should include the complete prohibition of the taking by man of any species which is or will be endangered by such removal. This is the only way to conserve certain species. On the other hand, many of our game birds have been harvested annually without detriment to the species. Would it be true conservation to prohibit the taking of all birds because such regulations are necessary to preserve certain species? Would it be medically sound to remove the appendix of every person—man, woman, and child—because it has been established that appendectomies have saved the lives of scores of persons? The logic is identical and the answer obvious.

Most of our parks today are having great difficulty in "preserving and guarding" their natural resources due to excessive human use of these areas (*cf.* Gunn and Mosby, 1952. *Wilson Bull.*, 64:57-60). State and national parks were established, primarily, so that man could see and enjoy nature; but man, by his excessive numbers, is often destroying the beauty which the park officials are endeavoring to preserve for him. Protection of the deer in many states has resulted in heavy destruction of the fodder vegetation and the starvation of thousands of animals. Both of these situations employ the complete protection of nature from direct utilization by man. In both instances the objective is to conserve the natural resources.

We must be logical and reasonable in our definition and in our practice of conservation. We must establish a more workable understanding between the various factions in the conservation field. There are many types of sin and it is possible that there are many types of conservation. It is possible for us to sin in our fight against evil; it is possible that we may destroy a natural resource in our efforts to conserve it. It has been stated that conservation is a point of view, not an assemblage of facts. Perhaps those of us interested in conservation will have to broaden our point of view to assure that we do not destroy in our over-zealous efforts to conserve; that we do not abuse by use; that we perpetuate while we utilize.—HENRY S. MOSBY AND W. W. H. GUNN.